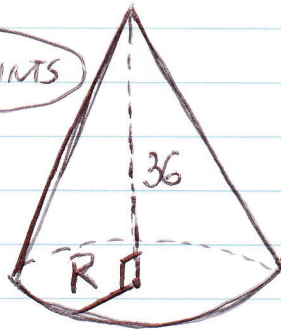


GEOOMETRY CH. 10 REVIEW p. 555 Total - 10 points

GIVEN:

#11
5 points



$$h = 36 \text{ cm} \quad V = 1728\pi \text{ cm}^3$$

$$R = ?$$

$$V = \frac{1}{3} \pi R^2 h$$

$$3 \cdot V = \frac{1}{3} \pi R^2 h \cdot 3 ; \quad 3V = \pi R^2 h$$

$$\frac{3V}{\pi h} = \frac{\pi R^2 h}{\pi h}$$

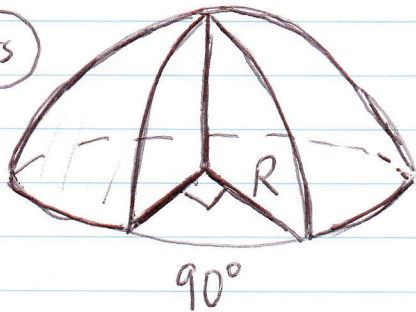
$$\frac{3V}{\pi h} = R^2$$

$$R = \sqrt{\frac{3V}{\pi h}} = \sqrt{\frac{3 \cdot 1728\pi}{\pi \cdot 36}} = \sqrt{\frac{3 \cdot 1728}{36}} = 12 \text{ cm}$$

$$\underline{R = 12 \text{ cm}}$$

#12

5 points



GIVEN:

$$V = 256\pi \text{ cm}^3$$

$$R = ?$$

$$V = \frac{4}{3} \pi R^3$$

$$V_{\frac{1}{8}} = \frac{4}{6} \pi R^3 = \frac{2}{3} \pi R^3$$

$$\frac{360 - 90}{360} = \frac{3}{4}$$

$$V' = \frac{3}{4} \cdot \frac{2}{3} \pi R^3 = \frac{\pi R^3}{2}$$

$$\frac{\pi R^3}{2} = 256\pi$$

$$R^3 = 2 \cdot 256 = 512$$

$$R = \sqrt[3]{512} = 8$$

$$\underline{R = 8 \text{ cm}}$$